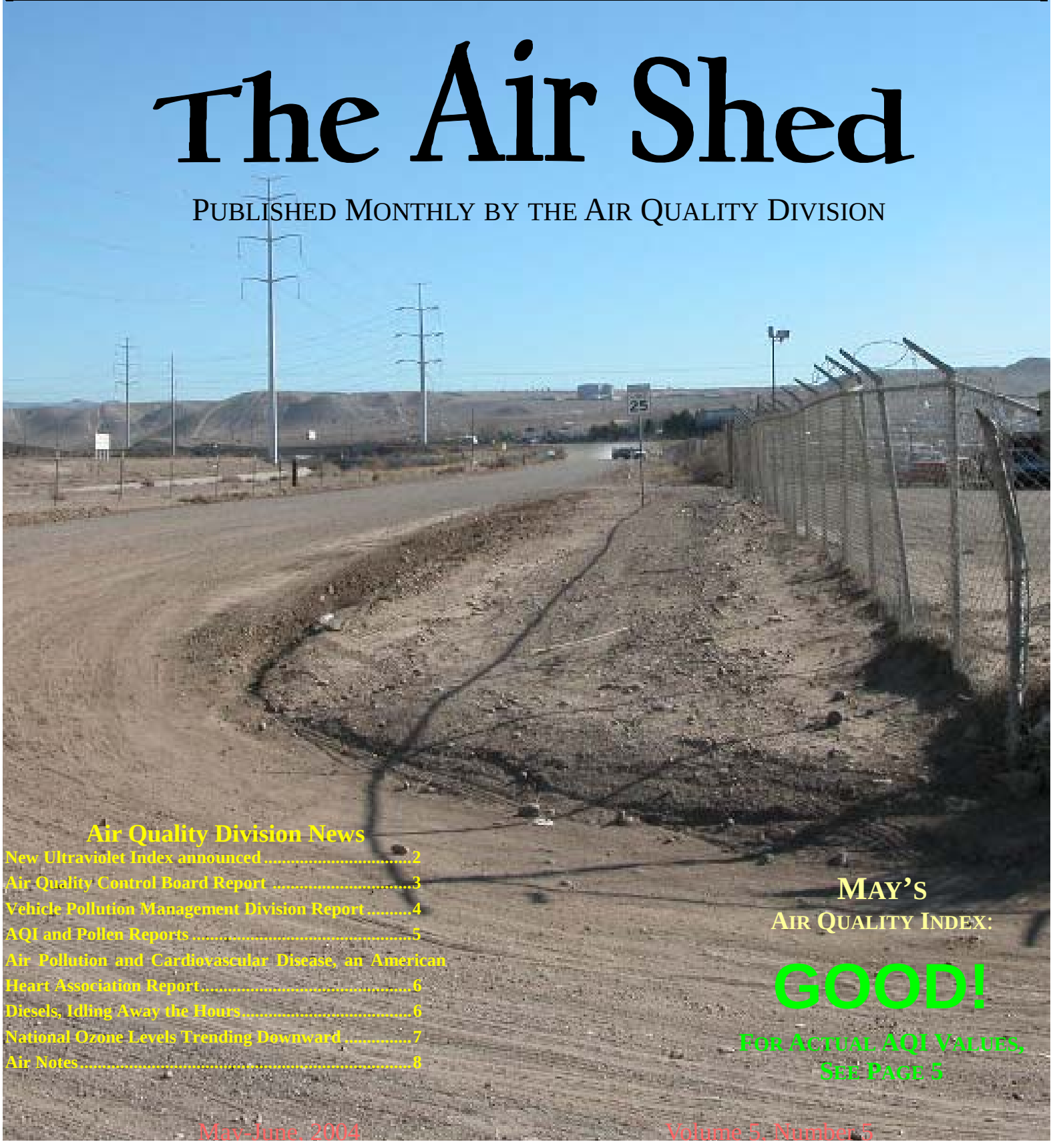
ALBUQUERQUE / BERNALILLO COUNTY
AIR QUALITY CONTROL BOARD
NEWSLETTER

Martin J. Chavez, Mayor

Thaddeus Lucero,
Bernalillo County Manager

The Air Shed

PUBLISHED MONTHLY BY THE AIR QUALITY DIVISION



Air Quality Division News

MAY'S AIR QUALITY INDEX:

GOOD!

FOR ACTUAL AQI VALUES, SEE PAGE 5

May-June, 2004 Volume 5, Number 5

City of Albuquerque
Environmental Health Department
Director - 768-2600

Albuquerque / Bernalillo County
Air Quality Control Board
768-2600

Air Quality Division Manager
768-1930

Important Phone Numbers
Air Quality Index & Pollen
768-4731 opt 1 or 766-7664
Burn/No Burn 768-BURN (2876)

Ambient Air
Monitoring - 768-1969
- National Ambient Air Quality Standards
- AQI & Seasonal Pollen

Compliance
& Field Enforcement - 768-1930
- Facility Inspection
- Topsoil Disturbance
- Compliance Assurance
- Asbestos Abatement
- Open Burn Permits
- Woodburning Exemptions

Education, Outreach & Technical Assistance - 768-1970
- Pollution Prevention
- Emergency Preparedness
- Community Outreach
- Small Business Assistance
- *The Air Shed* Newsletter

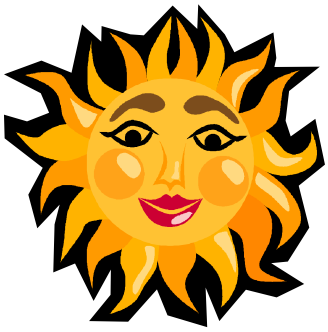
Permitting & Emission Inventories - 768-1930
- Application Review & Permit Issuance
- Permitting Policy / Development
- Ambient Air Dispersion Modeling
- Emission and Pollutant Inventories
- Aerometric Information Retrieval System [AIRS]

Control Strategies- 768-2600
- Development of Air Quality Regulations
- Preparation of State Implementation Plan elements
- Air Quality Control Board
- Review Federal environmental assessments

Public Health
Initiatives - 767-5621
- Air Quality Complaints
- Indoor Air

Quality Assurance - 768-1963
- EPA Reporting
- Review & Validation of Data

New Ultrviolet (UV) Index Announced



The Environmental Protection Agency and the National Oceanic and Atmospheric Administration's National Weather Service announced on May 26 the adoption of a new Global Ultraviolet (UV) Index for the measurement of solar ultraviolet radiation (UV). The new guidelines will better help people understand what precautions are necessary to protect themselves from the different potential levels of UV radiation possible each day.

The UV Index is a measure of the amount of skin-damaging UV radiation reaching the earth's surface. Previously the UV Index was reported on a scale of 0 to 10+, with 0 representing "Minimal" and 10+ representing "Very High." The new global scale (see below) now uses a scale of 1 (representing "Low") to 11 and higher (representing "Extreme"), a new color scheme, revised exposure categories, and different breakpoints between exposure categories. (A UV Index of "0" is still possible, but there is no corresponding health message because there either is no UV at that level or the amount is trivially small.)

UV Index

Exposure Category	UVI Range
Low	< 2
Moderate	3 to 5
High	6 to 7
Very high	8 to 10
Extreme	11+

The National Weather Service and EPA will provide daily UV forecasts for 58 major metropolitan areas, as well as forecasts by zip code. Information about the Global UV Index, including downloadable files and links to sites about UV radiation, is available on EPA's Web site at: http://www.epa.gov/sunwise/uvilaunch.html.

AIR QUALITY CONTROL BOARD REPORT

Summary of Activities*
May 12, 2004 Meeting of the Albuquerque/Bernalillo County Air Quality Control Board

Members Present:

Dr. Betty Chang
Dr. Johnnye Lewis
Ms. Sue Umshler
Ms. Karen Wentworth, Vice Chair

Hearing:

Proposal to amend 20.11.7 NMAC, Variance Procedure, and to incorporate the complete and amended 20.11.7 NMAC into the State Implementation Plan (SIP).

Regular Board Meeting

The Board welcomed its newest member, Dr. Johnnye Lewis, to its ranks. Dr. Lewis replaces long-time Member Paul Silverman.

Reports:

Mr. Isreal Tavarez reported on Air Quality Division activities. Mr Tavarez reminded the Board that May is Car Care Month. The Department's new website should be up and running by mid-June.

Vehicle Pollution Management Division Manager, Glen Dennis, presented a status report on the acquisition and installation of the new emissions analyzers, scheduled for completion by July 1, 2004. The new machines have the capacity to perform OBDII inspections as well as perform a check of the vehicle's fuel cap, capabilities not present in the old machines.

Action Items:

Election of new Board Chairperson and Vice Chairperson. Ms. Sue Umschler will serve as Chair and Dr. Betty Chang will serve as Vice Chair for the upcoming term.

Decision regarding proposed amendments to 20.11.7 NMAC, Variance Procedure, and incorporation into the SIP. The hearing was continued into the June 9th meeting of the Board.

Discussion regarding a request for variance by General Electric Aircraft Engines (GE) and recommendation of the Environmental Health Department Director. Board staff requested that the variance request be decided by a separate hearing before a hearing officer or by the Board itself. The decision on how to proceed with the variance request was deferred.

* Action items recorded from draft minutes still subject to Board approval at press time.

Albuquerque / Bernalillo County
Air Quality Control Board

Board Members & Staff
Stephen Pilon, City
Karen Wentworth, County
Johnnye Lewis - County
Sue Umshler - County (Chair)
Betty Chang - City (Vice Chair)
Donald Naranjo - City
Vacant - City

Alfredo Santistevan, Director
Environmental Health Department

Isreal L. Tavarez
Air Quality Division Manager/
Secretary to the Board

Adelia Kearny
Assistant City Attorney

Glen Dennis
Vehicle Pollution Management Division Manager

Elizabeth Begay
Environmental Planning Commission Liaison

Monthly Board Meetings
Board meetings are usually held the second Wednesday of each month at 5:15 p.m. in the Council/Commission Chambers, lower level, Albuquerque/ Bernalillo County Government Center, 1 Civic Plaza, 400 Marquette Avenue NW Albuquerque, NM.

Agendas, which will show the correct date and meeting place, are generally available three days before the meeting and can be obtained by contacting Mr. Neal Butt at 505-768-2660 or via e-mail at: nbutt@cabq.gov.

Notice to persons with disabilities: If you have a disability and require special assistance to participate in any Board meeting please call the Air Quality Division at 505-768-2600 (Voice) or 505-768-2482 (TTY)

Vehicle Pollution Management Division Feature

Vehicle Inspection and Maintenance Program:

Roll-out of the new Worldwide EIS-5000 BAR97 emissions analyzers continues with thirty (30) units having been installed and activated as of June 1st. Beta-testing of the units has gone well with several minor issues having been identified and for the most part addressed via software updates. VPMD approved software version 137 for release and installation on June 1st. The new software corrects several of the problems identified during Beta-testing and reduces the test time for pre-1996 model year vehicles subject to the two-speed idle test. VPMD Program Analyst Ron Latimer and Worldwide Technician Donald Jaramillo were able to update all the analyzers in two days. Effective July 1st, all Air Care Stations will be required to have phone hook-ups to their analyzers allowing for automated overnight updates.

CNG Vehicles refueling at 'Fuelmaker'

Most of the Air Care Stations using the new analyzer are very pleased with its speed and ease of use. This is particularly true with stations like car dealerships which test predominately newer vehicles that are OBDII (on-board diagnostic) equipped. Stations that test mostly older vehicles are less enthusiastic as the more stringent hydrocarbon exhaust standards and the gas cap test on the new analyzers are failing more vehicles than the old BAR90 equipment did. This should be less of a concern once the phase-in of the new analyzers is complete and the older BAR90 machines are no longer in use.

VPMD revoked the Air Care Inspector certifications of two inspectors previously employed at a Jiffy Lube where their manager observed them conduct a fraudulent test on a relative's vehicle and promptly fired them. The inspectors entered the vehicle identification data for a relative's vehicle that had just failed its emission test into the analyzer while actually testing a much newer vehicle they knew would pass - this is a fraudulent practice known as "clean-piping." It is also an intentional violation subject to immediate revocation. Ironically, based on the emissions readings and model year of the failing vehicle it probably would have cost less than $100 to repair the vehicle with the added benefit of better performance and fuel mileage.

Gas Cap Testing and Voucher Program:

Increasing use of the new NM2004 analyzers with pressurized gas cap testing has significantly increased the pace of the gas cap voucher program as many more failing gas caps are being identified and replaced. As of June 1st, the program has issued one-hundred thirteen (113) vouchers for $10 each towards the purchase of a new gas cap. VPMD has already seen gas cap failures in almost every make and in model years ranging from 1972 to 2002.

Alternative Fuels Update:

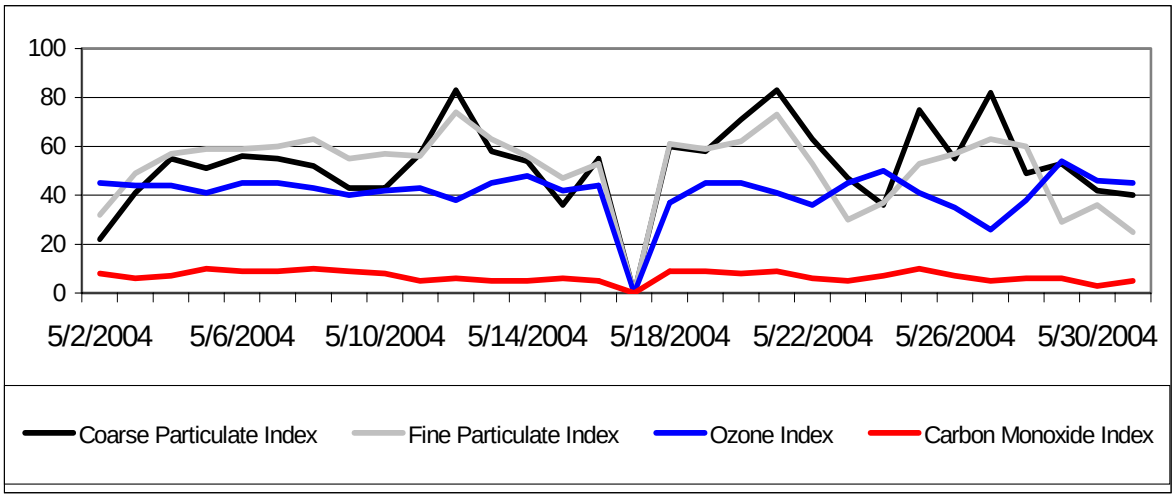
With replacement of a 1995 Oldsmobile Ciera sedan with a 2004 Honda Civic gas/electric hybrid, VPMD's fleet is now more than 50% alternative fueled. In addition to the hybrid rated at 45 mpg, VPMD's alternative fueled fleet includes an E-85 Ford Ranger pickup and Taurus sedan (can operate on up to 85% ethanol), a dedicated compressed natural gas (CNG) Dodge Truck, and two CNG Honda Civics - the cleanest internal combustion engine in any vehicle. VPMD installed a Fuelmaker CNG slow-fill fuel unit several years ago which allows the CNG vehicles to be refueled overnight on-site (see photo above).

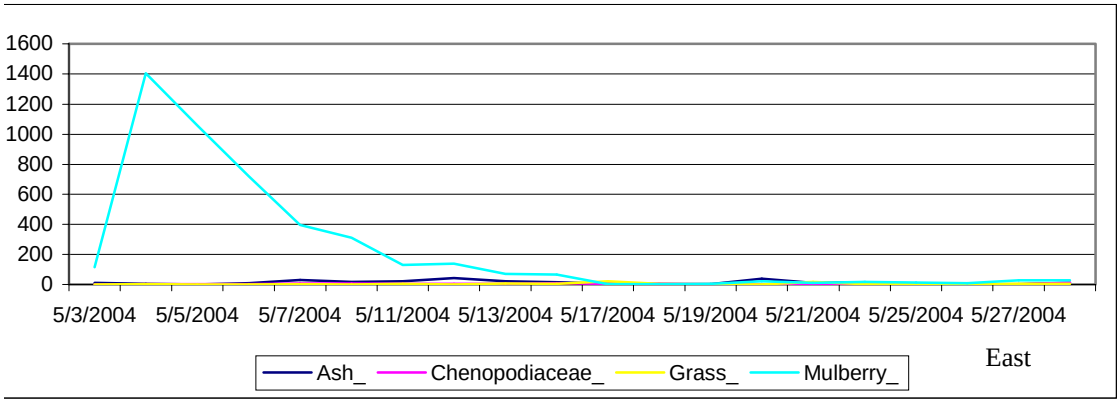
AIR QUALITY DATA FOR MAY, 2004

The Air Quality Index [AQI] values indicate how clean or polluted ambient air is, and if there are any health concerns associated with a specific value. The AQI in Bernalillo County is measured for four [4] nationally regulated air pollutants: Carbon Monoxide [CO], Ozone [O_3], Coarse Particulate [PM10] and Fine Particulate [PM2.5].

As shown by the graph below, AQI values were "Good" to "Unhealthy for Sensitive Groups" in May, which means that air pollutants at this level pose little or no health risks to our community, but those members of our community who already have respiratory problems may be slightly affected. Thus, as the values increase into a higher category, health risks will similarly increase. As you may have guessed, the last category, "Hazardous", with AQI values greater than 300, is very serious and can be detrimental to the health of the whole community even if emergency health warnings are triggered. Call the Air Quality Information Line at 766-7664 or 768-4731 Option 1 to get today's AQI Values.

AIR QUALITY INDEX
Hazardous > 300
Very Unhealthy 201 - 300
Unhealthy 151 - 200
Unhealthy for Sensitive Groups 101 - 150
Moderate 51 - 100
Good 0 - 50



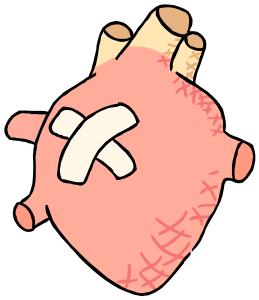


East

West

Pollen data is reported Monday - Friday, during the months of March - October. It is reported as grains of pollen per cubic meter of air sampled. Air Quality Monitoring staff collect data from areas east and west of the Rio Grande within the greater Albuquerque metropolitan area. Pollen data from a previous 24-hour sampling period is then published in local newspapers in the weather section, broadcast with local news station weather reports, or can be obtained by calling the **Air Quality Information Line** 766-7664

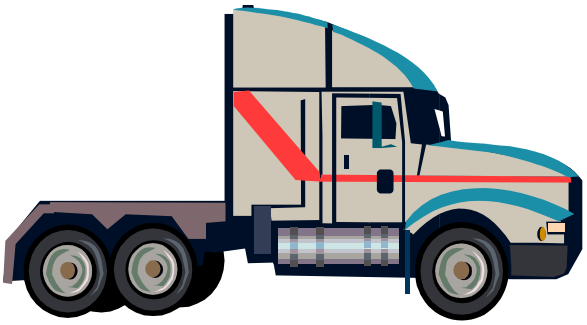
American Heart Association Links Air Pollution and Cardiovascular Disease



Exposure to air pollution contributes to the development of cardiovascular diseases, according to a new American Heart Association scientific statement published in the Journal of the American Heart Association. "The increase in relative risk for heart disease due to air pollution for an individual is small compared with the impact of the established cardiovascular risk factors such as high blood pressure or high cholesterol. However, this is a serious public health problem due to the enormous number of people affected and because exposure to air pollution occurs over an entire lifetime," said Robert D. Brook, M.D., lead author of the statement and an assistant professor of medicine in the Division of Cardiovascular Medicine at the University of Michigan in Ann Arbor. Until now, the American Heart Association had not drawn firm conclusions about the long-term effects of chronic exposure to different pollutants on heart disease and stroke because of flaws in research design and methodology of many pollution studies.

The association's experts conducted a comprehensive review of the literature on air pollution and cardiovascular disease. This scientific statement focuses on particulate matter pollution and reaffirms the dangers of environmental tobacco smoke - called secondhand smoke - as an air pollutant. Particulate matter (PM), also known as particle pollution, is composed of solid and liquid particles within the air.

Diesels – Idling Away the Hours



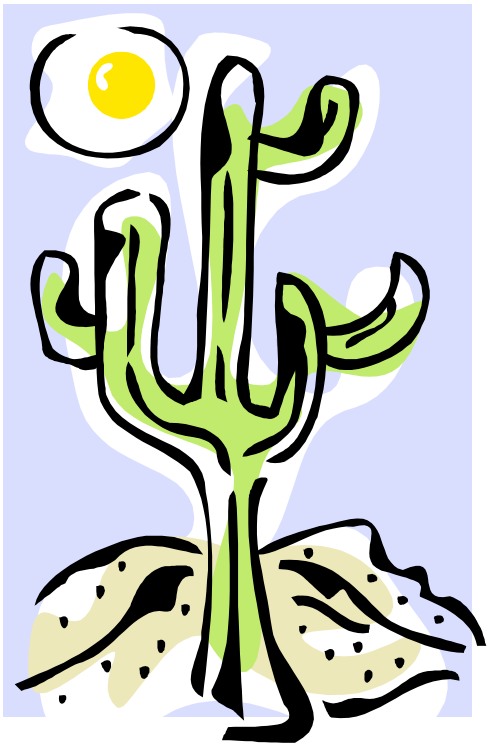
There are about 4,000,000 heavy-duty diesel trucks on the road today, transporting virtually everything in the built environment. About 1,000,000 of those trucks have on-board living quarters called sleepers that make it possible for the drivers to bunk in their trucks overnight and to carry with them almost all of the comforts of home. Many drivers spend as many as 26 days out of every 30 on the road, resting in their sleepers most nights. Many of those 'overnighters' leave their truck's engine running all night long to power air conditioners and heaters, and small appliances such as TVs, computers and microwave ovens. Engines are also often left to run all night to avoid sometimes difficult re-starts in cold weather. Many over-the-road trucks run almost day and night, using about a gallon of fuel per hour even when they're parked. The practice wastes a tremendous amount of fuel, almost four billion gallons per year nationally. Amid rising fuel costs and growing concerns for the environment, long-duration idling is a practice that is becoming more and more controversial. Many states and communities have passed anti-idling laws that prohibit long-duration idling, forcing many truck drivers to seek alternative solutions.

Several different types of on-board systems are now available that make it possible for a truck driver to stay comfortable in his truck's sleeper without relying on his truck's main engine for power. There are heaters and air conditioners that are powered by dedicated batteries that are then re-charged when the truck is later running during normal operation. Should the batteries that drive these systems become depleted before the night is over, there are sensors that can be fitted to the truck that will automatically start the truck's main engine to re-charge the batteries. Drivers warn that it is a bit unnerving to be awakened by the sound of their own truck's engine automatically starting in the middle of the night only to re-charge the batteries.

There are also 'Pony Paks', small, auxiliary, diesel or gasoline-powered units that provide power to operate heaters, air conditioners or block heaters without having to run the truck's main engine. These units also mount on the vehicle itself, providing emissions reductions to a given community only as long as the truck is parked there.

The latest innovation in anti-idling technology involves the trucker attaching the truck to an umbilical leading from a ground-based heater/air conditioner. Not only does the umbilical supply a quiet, climate-controlled environment for the driver, but it can also supply electrical power for those small appliances, telephone hookups so the driver can communicate, and even satellite TV and computer modem connections so the driver can stay in contact with the outside world. If necessary, the truck's engine block heater can also be plugged into the umbilical, removing the need to run the truck's main engine at all until the truck drives away. Since the main heater/air conditioner unit is located at the facility, not on the truck, any truck can use the service. Only an inexpensive adapter is necessary to attach the truck to the umbilical. Truckers pay for the service by the hour and basic services cost less per hour than an equivalent amount of diesel fuel needed to run the truck's main engine. Everyone walks away a winner.

National Ozone Levels Trending Downward



In a report entitled *The Ozone Report, Measuring Progress Through 2003*, published in April, 2004, EPA states that national ozone levels have been trending downward, in 2003 reaching the lowest levels recorded since 1980. Yet, despite the encouraging numbers, ozone remains a pervasive air pollutant.

Ozone is a gas composed of three oxygen atoms. It is rarely formed directly but, rather, forms as the end-product of a complex set of chemical reactions between VOCs (Volatile Organic Compounds) and oxides of nitrogen (NOx) that are 'cooked' in the presence of ultraviolet light emitted by the sun. Ozone exists naturally in Earth's stratosphere (Good Ozone) at altitudes between about 10 to 30 miles above Earth's surface where it serves the useful purpose of filtering out the damaging ultraviolet rays from the sun. But ozone also forms at lower altitudes (Bad Ozone or Ground Level Ozone) through the activities of man. Ground level ozone makes up the major constituent of smog that plagues most major cities in the United States and the world at large.

Many of the so-called ozone precursors, chemicals that ultimately combine to form ozone, are found in engine exhaust, emissions from industrial facilities, combustion from electric utilities, gasoline and diesel fuel vapors, and a wide variety of chemical solvents. Since ozone formation relies on intense ultraviolet radiation, ozone levels are generally at their worst in the summer months. Ozone levels usually peak sometime in the afternoon during the hottest time of the day and then ebb during the night when the ultraviolet engine is turned off and ambient temperatures drop to more moderate levels. Since the chemical reactions that form ozone occur slowly in the atmosphere over time, ozone can form miles away from the source of the original precursor chemicals (ozone transport), complicating the identification of the pollutant sources.

According to EPA, most of the reductions seen in ozone levels over the last 10 to 25 years can be traced back to emissions control programs that first began in the 1960's. But results are mixed. While significant reductions in ozone levels were seen in the heavily-industrialized Northeast and in the southern West Coast, ozone levels in much of the rest of the country, where regional transport of emissions is significant, didn't see as dramatic reductions. This would appear to indicate that additional work needs to be done to better understand the phenomenon of ozone transport.

Some of the ozone reductions also appear to be related to recent meteorological conditions. Ozone formation is driven by the solar engine. During 2003 when ozone levels were at their lowest in recent memory, the eastern part of the country was enjoying its coolest and wettest summer in years. While the summer of 2003 was warmer than average on the West Coast, it was also wetter, which undoubtedly helped prevent ozone formation. As proof that weather can make or break an ozone season, Denver's summer during 2003 was both hotter and drier than normal. Not surprisingly, Denver's ozone levels increased proportionately during the same time period.

The EPA report also states that, even though ozone levels are still trending downward, the rate of the downward trend has been slowing since 1990. The record shows that major reductions in ozone levels seen over the last 25 years were often closely associated with the maturation of federally or locally-imposed emissions reductions programs such as the Acid Rain Program and others. It is hoped that new upcoming regulations concerning diesel engines and regional power generation facilities will result in more dramatic episodes of ozone reduction.